

PROCEEDINGS OF LEARNED SOCIETIES.

GEOLOGICAL SOCIETY.

January 10, 1894.—W. H. Hudleston, Esq., M.A., F.R.S.,
President, in the Chair.

The following communication was read:—

‘On the Rhætic and some Liassic Ostracoda of Britain.’ By
Prof. T. Rupert Jones, F.R.S., F.G.S.

In this paper the published observations on the occurrence of these Microzoa in the Rhætic and Lower Liassic strata of England, chiefly in Gloucestershire and Somerset, by the Rev. P. B. Brodie, H. E. Strickland, C. Moore, and others, are first of all recorded; and the various notices of the so-called ‘*Cypris liassica*’ in various palæontological works are considered. Numerous specimens submitted by the Rev. P. B. Brodie, the Rev. H. H. Winwood, and Mr. E. Wilson, and some few examined in the Geological Society’s collection, have been studied, with the result of determining, it is hoped satisfactorily, the characters and alliances of *Darwinula liassica* (Brodie) and of six or seven other species found in the same and the associated series of strata. The *Darwinula globosa* (Duff), from Linksfield, Morayshire, is also critically re-examined as one of this interesting series of Rhætic Ostracoda. The other species belong for the most part to *Cytheridea*; thus most of them probably lived in brackish or estuarine waters.

January 24, 1894.—W. H. Hudleston, Esq., M.A., F.R.S.,
President, in the Chair.

The following communications were read:—

1 ‘The Ossiferous Fissures in the Valley of the Shode, near Ightham, Kent.’ By W. J. Lewis Abbott, Esq., F.G.S.

The fissures occur in a promontory of Kentish Rag between two tributaries of the Shode. There are four fissures in this promontory, striking at right angles to the valley. Details of the physiography of the area in which the fissures occur are given in the paper. Three of the fissures have obviously been in contact with the surface, and from these the bones appear to have been dissolved out. The fourth does not reach the top of the Rag, and further is sealed by an aragonite-lined chamber with stalactitic floor and ceiling. This fissure is from 2 to 6 feet wide and about 80 feet deep, and is filled with a heterogeneous collection such as constitutes the flotsam and jetsam of streams, along with materials derived from the rock in which the fissures occur. Several thousand bones were found, also 12 species of aquatic and land shells, an entomostracan, *Chara* and other vegetable remains have been procured.

The Author gives reasons for concluding that the fissures have

never been reopened since they were first closed by the materials introduced into them by the river, and that all the contained fossils belong to one and the same geological period. He points to the discovery of species not before found in Pleistocene beds as only a repetition of what has occurred in other sections he has worked, and remarks also that the increase of species is corroborative of a suggestion of Mr. C. Reid that the more we discover of the smaller creatures of this and the preceding age, the more they approximate to those of our own times. Even if we were to exclude from the lists all the species not previously found fossil elsewhere, we still have an extensive assemblage of the older Pleistocene forms, which must have lived during the filling of the fissures, and this therefore fixes the filling operation as having occurred in Pleistocene times.

2. 'The Vertebrate Fauna collected by Mr. Lewis Abbott from the Fissure near Ightham, Kent.' By E. T. Newton, Esq., F.R.S., F.G.S.

The vertebrate remains collected by Mr. Lewis Abbott are passed in review, and as far as possible specifically identified: they represent mammals, birds, reptiles, and amphibians; but no fishes have been found. In all, 48 different forms have been recognized; 3 or perhaps 4 are extinct; 11 are extinct in Britain, but are still living elsewhere; 21 are living in Britain, but are known to be Pleistocene or Forest-bed forms; and 12 are species now living in Britain which have not hitherto been recognized in Pleistocene or older deposits.

Among the more important species found in this fissure, but extinct in Britain, may be noticed, besides *Elephas primigenius*, *Rhinoceros antiquitatis*, and *Hyæna*, the *Ursus arctos*, *Canis lagopus*, *Myodes torquatus*, *Myodes lemmus*, *Microtus gregalis*, *M. ratticeps*, *Lagomys pusillus*, *Spermophilus*, and *Cervus tarandus*. The name of *Mustela robusta* is proposed for some limb-bones intermediate between the Polecat and Marten, and the remains of an extremely small Weasel are noticed as a variety of *Mustela vulgaris*. Although the large number of living species gives a recent aspect to this series of remains, the evidence, it is believed, points rather to their being all of Pleistocene age, and most nearly allied to the fauna of British caves.

MISCELLANEOUS.

On the Embryology of the Cumacea.

By P. BUTSCHINSKY, of the University of Odessa.

THE segmentation of the ova in *Iphinoë maotica*, Sowin., is of the centro-lecithal type. All the segmentation-nuclei, which in the centre of the ovum are surrounded by radiating aggregations of